

# UNIT PRICES

Approved For Release 2002/02/19 : CIA-RDP86-00244R000200510003-6

## Top U.S. firms compete for Teton Dam

Seven competitors, including some of the largest U.S. construction firms, bid on the Bureau of Reclamation's Lower Teton Dam project in eastern Idaho.

A joint venture of Morrison-Knudsen Co., Inc. (M-K), Boise, Idaho, and Peter Kiewit Sons' Co., Omaha, is the apparent low bidder at \$39.5 million, slipping 13% under the second low joint venture of Dravo Corp., Bellevue, Wash., S.J. Groves & Sons, Minneapolis, and Granite Construction Co., Watsonville, Calif.

Work includes an earth and rockfill dam, power and pumping plant. The zoned embankment dam will be 3,050 ft long at the crest and 305 ft above the bed of Teton River. The power and pumping structure will accommodate three 10-mw generators and horizontal, centrifugal-type pumping units.

In addition, the project will include river outlet works, 42-in.-dia. pump discharge line, 72-in.-dia. feeder pipeline and spillway.

M-K-Kiewit gained substantially with its excavation bids. For the first 4.6 million cu yd of excavation in borrow areas A and B, its \$0.43-per-cu-yd bid plunged 49% under the second low's \$0.84-per-cu-yd price. And for ex-

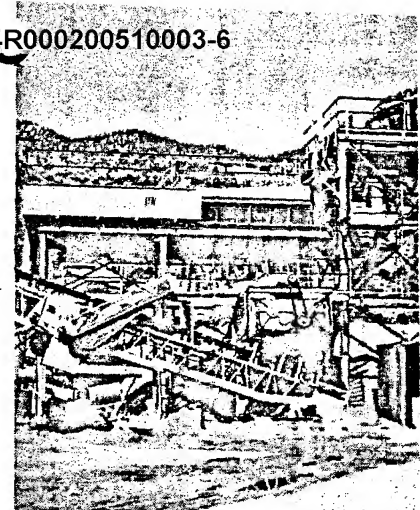
cess excavation, 2.4-million cu yd, the winner halved the second low's bid.

Minimum wage rates include: laborer, \$4.33 to \$4.93; drill doctor, \$4.93; brakeman, \$5.24; tractor and shovel loader operator, \$6.18.

Earthfill dam embkmt, zone 1.....	cy	4,800,000	0.40	0.45
special compact.....	cy	41,000	1.65	7.00
Sand, grav & cobble fill, dam embkmt, zone 2.....	cy	2,000,000	0.85	1.00
Silt, sand, grav & cobble, dam embkmt, zone 4, place.....	cy	220,000	0.43	0.12
proc & place.....	cy	330,000	0.65	0.90
Rockfill, dam embkmt, zone 5.....	cy	780,000	0.09	0.80
Riprap.....	ton	130,000	2.85	6.70
Permeable bf.....	cy	66,000	4.30	1.50
compact.....	cy	54,000	1.05	1.00
Drill grout holes, to 30' deep.....	lf	39,000	4.30	4.20
30'-60' deep.....	lf	23,000	4.50	4.20
60'-110' deep.....	lf	20,000	4.70	4.20
110'-160' deep.....	lf	13,000	4.90	4.25
160'-210' deep.....	lf	5,800	5.00	4.75
210'-260' deep.....	lf	5,800	5.20	4.75
260'-310' deep.....	lf	800	7.00	4.75
Pressure grout, cement, sand.....	bbl	55,000	6.00	5.20
found.....	cy	1,700	16.00	30.00
Perf sew pipe w/drain, 8".....	lf	260,000	3.40	2.30
8".....	lf	6,000	7.50	8.00
10".....	lf	5,400	8.50	11.00
12".....	lf	140	11.00	15.00
Cement for conc.....	bbl	113,000	4.50	4.50
Reinf bars, #5 & less.....	lb	380,000	0.23	0.23
#6 & 7.....	lb	4,300,000	0.23	0.23
#8 thru 11.....	lb	8,100,000	0.23	0.23
weld.....	ea	200	15.00	50.00
Conc. bf.....	cy	2,270	40.00	64.00
grout cap.....	cy	1,870	35.00	84.00
diversn inlet.....	cy	420	75.00	64.00
intake struct above EI 5136.....	cy	600	140.00	104.00
shaft & hse above EI 5295.....	cy	390	165.00	114.00
channel lining floor.....	cy	770	40.00	54.00
walls.....	cy	970	125.00	134.00
stilling basin floor.....	cy	1,290	50.00	54.00
walls.....	cy	2,530	90.00	104.00
cover.....	cy	630	120.00	104.00
canal outlet wrk contr struct.....	cy	550	90.00	74.00
stage 2, river outlet wrk intake struc & gate chamb.....	cy	770	50.00	114.00
pipe encasmt.....	cy	1,170	40.00	54.00
penstock encasmt.....	cy	775	80.00	74.00
river pipe & gate anchor stage 1, power & pump plant substruct.....	cy	4,800	65.00	74.00
intermed struct.....	cy	6,000	140.00	114.00
spillway inlet struct, floor cutoff & crest.....	cy	2,850	45.00	54.00
enforced walls & piers spillway chute floor, cutoff & 60" pipe encasmt chute walls.....	cy	9,550	60.00	64.00
spillway stilling basin floor cutoff & dentates walls.....	cy	1,280	200.00	204.00
Precast conc panels, power & pump plant superstruct control & whse struct.....	ls	4,090	40.00	54.00
Steel, power & pump plant superstruct.....	lb	1,735	90.00	94.00
control & whse struct.....	lb	340,000	0.58	0.57
roof decking, superstruct control & whse struct.....	lb	30,000	0.68	0.70
6 outlet gates 4'x4' w/apert.....	sf	8,800	0.70	5.00
2 jet flow gates 20".....	sf	4,400	1.00	5.00
Hydraulic control systems 3 penstock butterfly valves 3 radial gates, 20'8"x15' w/motor oper hoists.....	ls	315,000	350.00	350.00
Pipe & fittings, power & pump plant, cast iron soil cast iron pressure.....	lb	42,000	35.00	35.00
steel 2" & less w/valves 2 1/2" & larger.....	lb	181,000	245.00	245.00
stainless steel.....	lb	452,000	331.00	331.00
Conduit, electr rigid met, embed or expose, 3/4".....	lf	12,500	4.40	1.85
1".....	lf	3,750	4.80	2.20
1 1/2".....	lf	3,850	5.30	3.00
2".....	lf	3,400	6.00	3.50
2 1/2".....	lf	500	7.50	5.00
3".....	lf	300	10.00	7.00
4".....	lf	200	11.00	10.00
5".....	lf	100	23.00	16.00

1C Morrison-Knudsen Co., Inc., Boise, ID & Peter Kiewit Sons, Co., Omaha, NB, a joint venture.....				\$39,476,142
2 Dravo Corp., Bellevue, WA, S. J. Groves & Sons, Minneapolis, MN & Granite Constr. Co., Watsonville, CA, a joint venture.....				45,424,390
7 Perini Corp., Framingham, MA & Brown & Root, Inc., Houston, TX, a joint venture.....				56,092,435
EE: Bureau of Reclamation, Denver, CO.....				35,999,272

Bids: 10/29/71	Unit	Quantity	Unit Price	1C	2
Items:					
Mobilize & prep.....	ls	Job	3,000,000	3,000,000	
River divers & care, remove water from fndn.....	ls	Job	905,000	1,923,000	
Exc, dam embankmt fndn, above EI 5040.....	cy	300,000	3.80	5.50	
first 300,000 cy.....	cy	150,000	2.90	3.00	
over 300,000 cy.....	cy	420,000	0.85	1.75	
bel EI 5040.....	cy	230,000	0.69	1.00	
Exc, open-cut, struct, first 310,000 cy.....	cy	310,000	3.25	2.50	
over 310,000 cy.....	cy	160,000	2.40	1.50	
Exc, tailrace channel, first 85,000 cy.....	cy	85,000	1.50	0.50	
over 85,000 cy.....	cy	45,000	1.50	0.35	
Exc, grout cap, 5' deep.....	cy	1,700	50.00	50.00	
5'-8' deep.....	cy	170	67.00	75.00	
Exc, strip borrow pits, Area A & B.....	cy	230,000	0.36	0.80	
Area C & extensn.....	cy	120,000	1.70	1.30	
& stockpile.....	cy	2,700,000	1.10	1.40	
Exc, in Area A & B, transport to dam embankmt, first 4,600,000 cy.....	cy	4,600,000	0.43	0.84	
over 4,600,000 cy.....	cy	2,400,000	0.30	0.60	
Exc, outlet wrk tunnel, intake struct shaft, gate chamb & shaft.....	cy	31,400	37.00	30.00	
aux tunnel, gate chamb, adit & shaft.....	cy	10,900	58.00	45.00	
Tunnel & shaft supports, steel.....	lb	630,000	0.35	0.35	
rock bolt.....	lf	20,000	3.25	3.25	
Conc, outlet wrk tunnel w/o steel liner.....	cy	3,850	100.00	104.00	
w/ steel liner.....	cy	6,680	38.00	59.00	
Conc, aux tunnel lining.....	cy	5,410	115.00	129.00	



Coarse aggregate and concrete sand meeting California Water Resources and Highway specs are produced at Kirt Construction Company's Fraser Park, California, installation. The unique plant features an Eagle Water Scalping Tank with Autospec control, rising current classifiers, recirculating pump and two-product metering bin; plus three Eagle Washers.

## Plenty of guts-but no bellies

### with Eagle Stationary Sand Classifiers

Progressive producers everywhere depend upon expertly engineered, ruggedly constructed Eagle Stationary Sand Sections to provide specification material shift after shift, regardless of the bellies (excess of certain sizes) that may occur in pit run material. Only Eagle combines low-maintenance reliability and capacity with precision re-blending. That means added years of service life, producing material at lowest cost per ton.

Only Eagle Water Scalping Tanks offer patented AUTOSPEC® and DIALSPLIT® re-blending controls; plus rising current classifiers, product metering bins and a host of other money and material-saving features. Only Eagle offers 10 single screw and 4 double screw fine material Washer-Classifiers-Dehydrators with dozens of options engineered to meet your requirements.

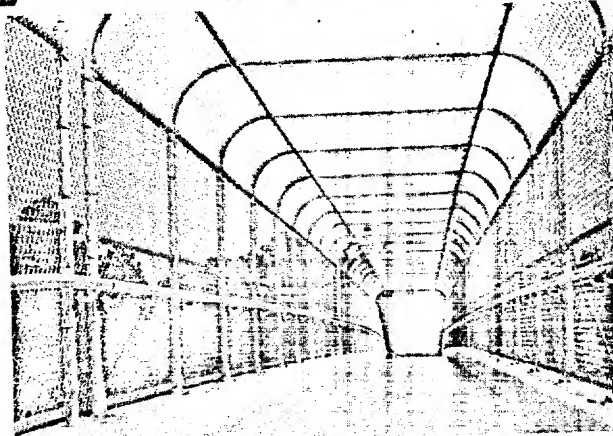
Write today for Catalog Sections B & C. EAGLE IRON WORKS, Des Moines, Iowa 50304. Factory-Trained Distributors Everywhere.



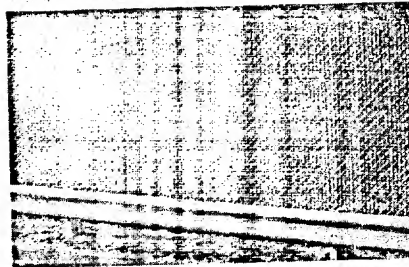
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# Anchor® trusted name for highway safety products

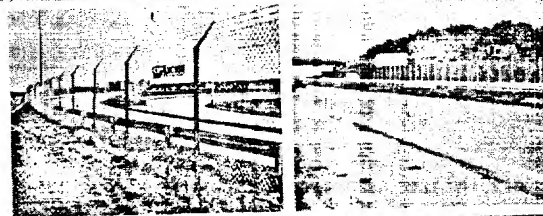
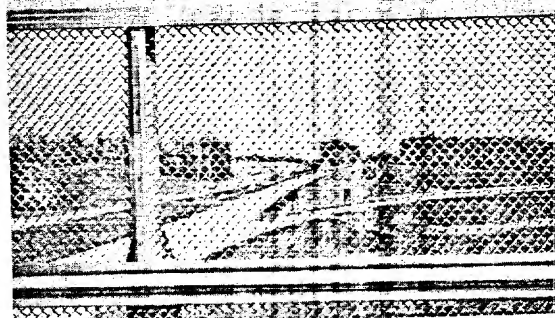
Chain link pedestrian overpass protects both people and automobiles.



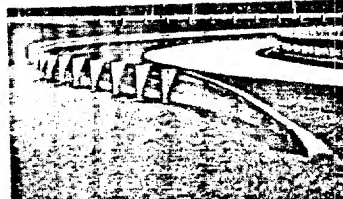
Permascreen "Suburbanalre"® fence blocks out unsightly landscapes.



Bridge railing and screening provides protection above and below.



Above: right-of-way fencing. At right: Chain link fencing on median strip is unsurpassed as a glare guard.



Anchor Guard Rail is strong and durable.

Along the road, nothing does more jobs better than Anchor® Fence.

Anchor offers a complete selection of highway safety products for roadside, median, bridge, or overpass. Chain link fabric shown is available in aluminum alloy, galvanized steel, or Anchor's exclusive Permafused® Chain Link with a vinyl coating that's as tough as it is good looking.

With three manufacturing plants and 48 regional offices, Anchor is prepared to give you fast, on-time delivery and erection service. And every Anchor Fence is installed quickly and expertly by trained Anchor crews.

Unit	Quantity	Unit Price	1C	2
3"	3,500	6.30	3.50	
4"	850	7.50	6.00	
plastic, 3/4"	13,000	10.00	7.30	
1"	250	3.10	3.60	
2"	150	3.80	3.80	
4"	100	5.00	4.20	
comp.	400	9.50	5.00	
Pipe trenches, exc.	26,000	2.10	3.50	
backfill	23,000	4.10	2.95	
comp backfill	15,000	2.90	4.50	
Backfill, structures	2,400	6.00	4.50	
comp.	2,200	2.90	6.50	
Pipe, pretens conc, RCP				
press, RCP cyl press or steel lined,				
cl B, 36", 25" press.	182	28.00	40.00	
42", 225" press.	635	55.00	55.00	
250" press.	74	54.00	55.00	
275" press.	74	54.00	55.00	
300" press.	65	54.00	55.00	
48", 125" press.	390	74.00	70.00	
80", 25" press.	168	69.00	60.00	
72", 125" press.	4,340	111.50	83.00	
cl C, 72", 50" press.	100	106.00	95.00	
75" press.	500	112.00	95.00	
100" press.	250	116.00	95.00	
125" press.	150	120.00	95.00	
150" press.	135	125.00	95.00	
cl D, 42", 325" press.	55	59.00	60.00	
48", 100" press.	240	76.00	70.00	
72", 250" press.	375	127.00	95.00	

Completion time: Part I (excavation and stockpiling Borrow Area C and C extension) 425 calendar days  
Part II (power and pumping plant structures) 840 calendar days  
Part III (remainder of work) 1,800 calendar days  
Liquidated damages: Parts I & II—\$750 per day  
Part III—\$1,500 per day

ENR Constr Cost Index (1913=100) U. S. 20-cities avg.—1644

## Concrete beats out steel for subway tunnel under river

Over 12,000 ft of twin-tube subway tunnel to be driven under the Potomac River, between Washington, D.C., and Virginia will cost about \$2,100 per lin ft, including shafts and pumping station. The winning joint venture of J. F. Shea Co., Inc., Walnut, Calif.; Gordon H. Ball, Alexandria, Va.; and S&M Constructors, Inc., Philadelphia, bid \$23.4-million, 13.1% under the engineer's estimate for the winning alternate, cast-in-place concrete tunnel for sections 1 and 2. And it was 10.7% under the next lowest bid price, for steel segmented tunnel lining, submitted by a joint venture of S. J. Groves & Sons Co., Minneapolis, and Granite Construction Co., Watsonville, Calif.

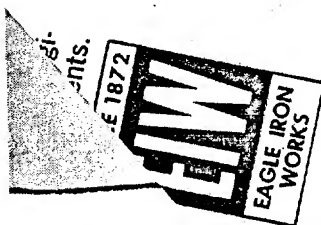
Rock tunnel (section 3) accounts for 8,303 lin ft in this award of section C-4, Huntington Route, by the Washington Metropolitan Area Transit Authority. The rock will be mined, the tunnel ribbed with steel and lined with pumped concrete.

The other two tunnel sections will be conventionally cast-in-place concrete.

The two tunnel tubes have a 16-ft 8-in. ID and 19-ft 4-in. OD to pay line.

The winner priced concrete lining for section 1 at less than one-third the price bid by its closest competitor, which chose the steel segmented lining alternative. The winner's price was 39% higher for lining section 2.

(Continued on p. 90)



Division of Anchor Post Products, Inc. Plants in Baltimore, Md.; Houston, Texas; Los Angeles, Calif.